

Tubes for fluid power cylinder barrels —

Part 2: Specification for non-ferrous metallic tubes with specially finished bores

[ISO title: Pneumatic fluid power systems — Cylinder barrels —
Requirements for non-ferrous metallic tubes]

UDC [669.2/.8]-462:[621.226-222 + 621.5-222]

Committees responsible for this British Standard

This British Standard was published under the direction of the Mechanical Engineering Standards Committee MEE/-. Its preparation was entrusted to Technical Committee MEE/186 upon which the following bodies were represented:

- Association of British Mining Equipment Companies
- Association of Hydraulic Equipment Manufacturers
- British Compressed Air Society
- British Hydromechanics Research Association
- British Steel Corporation
- British Telecom
- Department of Industry (National Engineering Laboratory)
- Electricity Supply Industry in England and Wales
- Engineering Equipment and Materials Users' Association
- Federation of Manufacturers of Construction Equipment and Cranes
- Health and Safety Executive
- Institution of Mechanical Engineers
- Machine Tool Industry Research Association
- Ministry of Defence
- National Coal Board

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

- British Industrial Truck Association
- British Steel Industry
- Hydraulic Press Manufacturers' Association
- Institution of Chemical Engineers
- Institution of Production Engineers
- Welding Manufacturers' Association
- Coopted member

This British Standard, having been prepared under the direction of the Mechanical Engineering Standards Committee, was published under the authority of the Board of BSI and comes into effect on 29 July 1983

© BSI 10-1999

The following BSI references relate to the work on this standard:
Committee reference MEE/186
Draft for comment 81/77812 DC

ISBN 0 580 13351 6

Amendments issued since publication

Amd. No.	Date of issue	Comments

Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
0 Introduction	1
1 Scope and field of application	1
2 References	1
3 Definitions	1
4 Symbols	1
5 Manufacture of base tubes	1
6 Pressures	2
7 Temperature	2
8 Tolerances	2
9 Surface finish	3
10 Protection and packing	3
11 Test certification	4
12 Identification statement	4
Annex A Non-ferrous metallic pneumatic cylinder tube dimensions and tolerances	5
Annex B Method of ordering	6
Figure — Permissible deviation from straightness: tubes shorter than 1 000 mm	3
Table 1 — Mean thickness and eccentricity	2
Table 2 — Tolerances for cut-length tubes	2
Table 3 — Values of surface finish	4
Table 4 — Dimensions and tolerances of aluminium tubes	5
Table 5 — Dimensions and tolerances of brass tubes	5
Publications referred to	Inside back cover

National foreword

This Part of this British Standard has been prepared under the direction of the Mechanical Engineering Standards Committee. It is identical with ISO 6537:1982 *“Pneumatic fluid power systems — Cylinder barrels — Requirements for non-ferrous metallic tubes”*, published by the International Organization for Standardization (ISO). It also reflects the European Oil-hydraulic and Pneumatic Committee’s (CETOP) Recommended Practice RP 79P for non-ferrous pneumatic cylinder tubes (ready to use).

It is one of a series of specifications covering the requirements of tubes used in the manufacture of fluid power cylinder barrels. The series comprises the following published Parts:

- *Part 1: Steel tubes with specially finished bores;*
- *Part 3: Steel tubes with specially finished surfaces for telescopic applications for use in the mining industry;*
- *Part 4: Specification for steel tubes with specially finished surfaces for general telescopic applications.*

For the purposes of this Part of this British Standard the identification statement required by clause 12 may be replaced by the following statement.

“Requirements for non-ferrous metallic tubes with specially finished bores comply with BS 5242 *“Tubes for fluid power cylinder barrels”* Part 2:1983 *“Specification for non-ferrous metallic tubes with specially finished bores”*.”

Terminology and conventions. The text of the International Standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

The comma has been used as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Wherever the words “International Standard” appear, referring to this Part of this standard, they should be read as “this Part of this British Standard”.

Cross-reference

International Standard	Corresponding British Standard
ISO 286-1 ^a	BS 4500 ISO <i>limits and fits</i> Part 1:1969 <i>General, tolerances and deviations</i> (Technically equivalent)

^a At present at the stage of draft.

The Technical Committee has reviewed the provisions of ISO 468:1982, ISO 3322:1975 and ISO 5598¹⁾, to which reference is made in the text, and has decided that they are acceptable for use in conjunction with this standard.

The related British Standard to ISO 468:1982 is BS 1134 *“Method for the assessment of surface texture”* Part 1:1972 *“Method and instrumentation”*.

¹⁾ At present at the stage of draft.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 6, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.